SLC® Series 5 Carrier System

AUA417 Power Converter Unit — 5SPQAA1

This data sheet describes the AUA417 power converter unit (PCU) (COMCODE 106436504) and is intended for the end-user of the unit. The AUA417 PCU is designed to be used in a *SLC*®-2000 multi-services distant terminal (MSDT) to support the 130 V DC central powering application. The AUA417 PCU accepts input voltage from an AUA416 power interface unit (PIU) and converts it to the specified voltage levels required by the narrowband electronics in the MSDT.

This data sheet is reissued to incorporate minor editorial changes.

Figure 1 is a functional block diagram of the unit, and Figure 2 shows the faceplate.

The AUA417 PCU converts the PIU supplied voltage of −130 V DC (nominal) to −48 V, +5 V, and −5 V sources to be used by the narrowband electronics and ringing generator in the MSDT. A 60 V DC source is also generated and supplied to the storage circuit located in the PIU. Table 1 lists the distribution of the converter outputs to the various MSDT units. The maximum output power of the AUA417 PCU is 58 watts.

In order to protect the narrowband electronics in the MSDT from overvoltages caused by an AUA417 PCU failure, the control circuit monitors the +5 V, −5 V, and −48 V outputs; and in the case of overvoltage, it sends a shutdown signal to the main and 5 V DC/DC converters. The shutdown signal will not latch the unit in the shutdown mode, but the unit will cycle on and off at a slow rate as long as the overvoltage condition exists. The control circuit also monitors these same outputs for the presence of low voltage; and if low voltage is detected with input power present, the AUA417 PCU will issue a failure alarm that causes the FAIL LED to light.

The inventory and alarm circuit contains factory-installed information peculiar to the AUA417 PCU (for example, COMCODE number) that can be remotely accessed using an operation interface processor. This circuit also gathers alarm information from the PCU and transmits it to the FHA1 backplane interface unit (BIU) over a serial interface.

Removal of the AUA417 PCU from its slot in the MSDT will interrupt all narrowband services.

Table 1. Distribution of PCU Output

Output Lead	MSDT Unit(s)
−48S	All circuit packs except BYB1B optical unit (OU)
−48R	AUA413 ringing generator unit (RGU)
+48R	AUA413 RGU
+5S	All circuit packs
−5	All circuit packs
+5R	All circuit packs except BYB1B OU and AUA416 PIU
−60	AUA416 PIU

FAIL (Red LED): When lighted, indicates that an undervoltage condition is detected at the +5 V, −5 V, or −48 V output.

−**130V**, −**130V RTN** (Faceplate Test Points): These test points are used to measure the input voltage (−130 V DC) to the PCU.

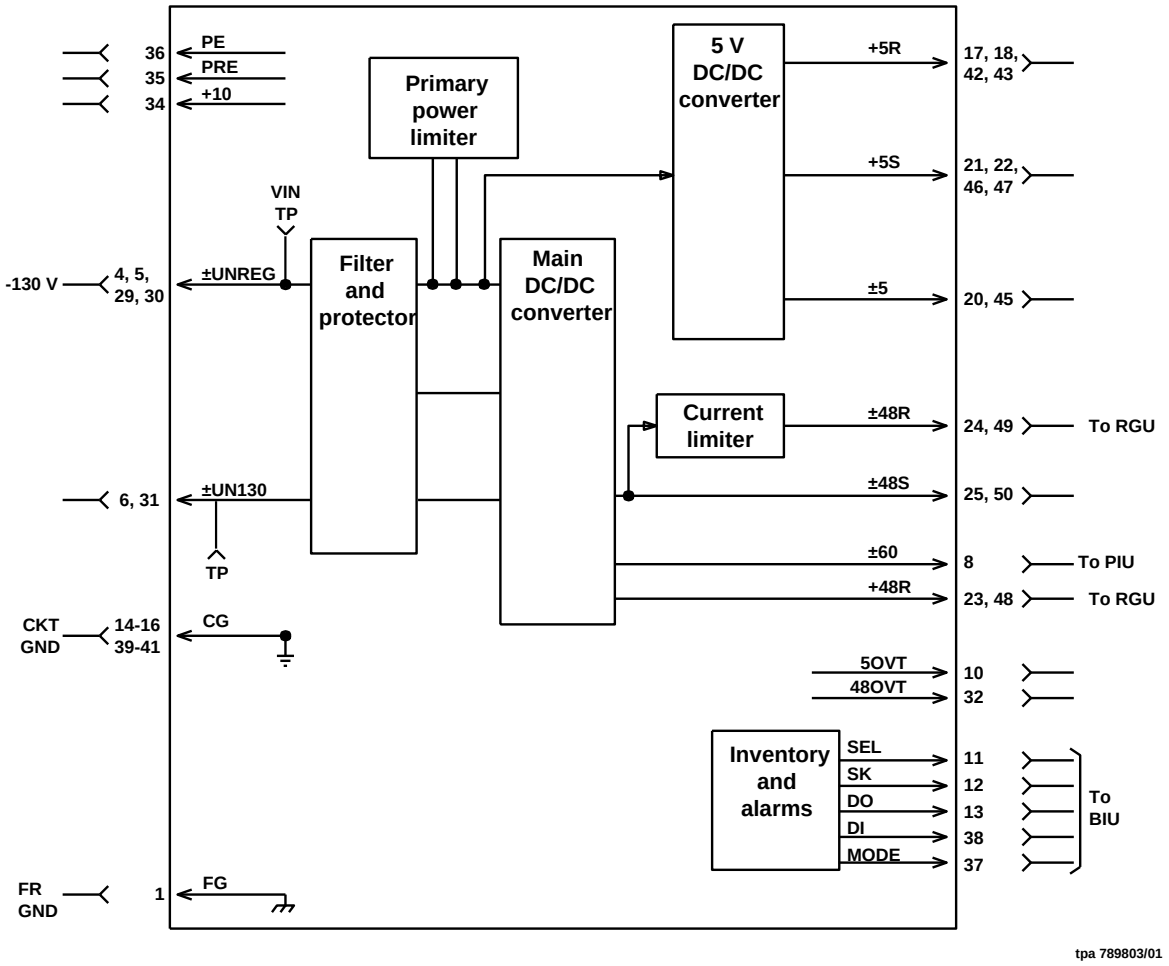

Figure 1. AUA417 PCU Block Diagram

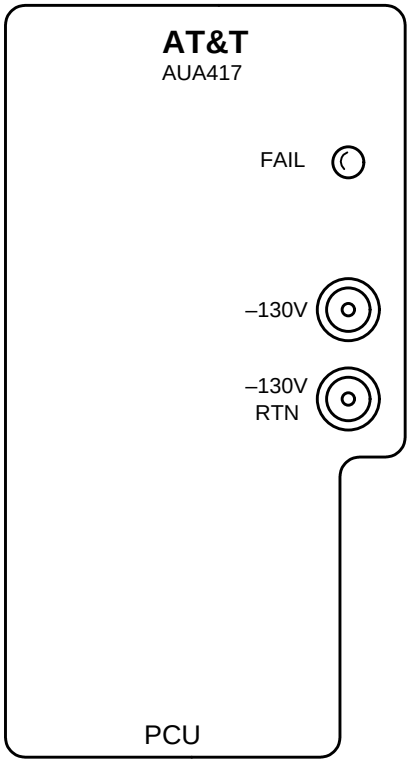

Figure 2. AUA417 PCU Faceplate

Follow local procedures for obtaining technical assistance. AT&T also provides in-hours or emergency out-of-hours help for the *SLC* Series 5 Carrier System. Call the AT&T Regional Technical Assistance Center at **1-800-225-RTAC**.

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